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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,679	10/22/2003	Christopher A. Ras	2352P014	6625

8791 7590 01/29/2007
BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/691,679

Applicant(s)

RAS ET AL.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 12-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 27, 2006 has been entered.

Election/Restrictions

2. Claims 12 through 30 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 5, 2006.

Claim Objections

3. Claim 3 is objected to because of the following informalities: "a second" (line 2) should be changed to --the second--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In Claim 10, the recitation of “removing the mechanical restraints in the second and fourth directions” (lines 1-2) is new matter. The specification and drawings, as originally filed, do not provide support for removing mechanical restraints in any second and fourth directions.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1 through 11 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, it is unclear from the disclosure what is now meant by a “third direction” (line 11) and a “fourth direction” (line 14). Furthermore, there is a great deal of confusion raised with all of the recitations together of a “first”, “second”, “third”, and “fourth” directions.

With respect to Claim 10, it is unclear from the disclosure what is meant by removing the mechanical restraints in the second and fourth directions, once the adhesive sets. The specification makes it very unclear as to what directions, if any, that the mechanical restraints are removed and for now the claim to require both second and fourth directions completely contradicts the specification. NOTE: No art rejections have been applied to Claim 10 since there are a great deal of confusion and uncertainty as to the proper interpretation of the limitations of the claim. The examiner will not speculate as to what the interpretation of Claim

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10 should be. Therefore, it would not be proper to reject such claims on the basis of prior art.

See MPEP 2173.06.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 4, 5, 8, 9, 11 and 31, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Baermann 4,638,281.

Baermann discloses a method of assembling permanent magnet blocks comprising: restraining movement of a first permanent magnet block (top magnet 30 in Fig. 1) in a first direction (e.g. radial direction) by placing the first permanent magnet block in a nonmagnetic frame (carrier 12); mechanically further restraining movement of the first permanent magnet block in a second direction (e.g. circumferential direction) mechanically with the use of a spring clip 44 (in Fig. 1); placing a second permanent magnet block (left magnet 30 in Fig. 1) adjacent to the first permanent magnet block to form part of a magnetic circuit; restraining movement of the second permanent block in a third (radial) direction, which would exclude the step of, or otherwise be brought about by, placing the second permanent magnet adjacent to the first permanent magnet block; and mechanically further restraining movement of the second permanent magnet block in fourth (circumferential) direction by another spring clip 44, which meets all of the limitations of the claimed invention.

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Regarding Claim(s) 2, 4 and 8, the non-magnetic frame (e.g. 12) of Baermann restrains movement of the first and second magnet blocks in the first (radial) direction and third (radial) directions, respectively. Furthermore, one radial direction can be selected (i.e. a vertical direction) such that the first and third directions are the same as the non-magnetic frame (e.g. 12) restrains movement in this very same direction.

Regarding Claim(s) 9 and 31, Baermann further teaches applying an adhesive (moldable material 42) to one of the sides of each of the first and second permanent magnet blocks and adhering the first and second permanent magnet blocks to adhere the nonmagnetic frame and restrain movement of the first and second permanent magnet blocks in the second (circumferential) direction.

Regarding Claim(s) 11, Baermann further teaches fracturing one of the magnetic blocks while maintaining the position of the proximate the magnetic block with the nonmagnetic frame and removing the fractured magnetic block from the nonmagnetic frame (see col. 5, lines 30-35).

10. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Taneda et al 5,046,235.

Taneda discloses a method of assembling permanent magnets comprising: restraining movement of a first permanent magnet block 1L, 2b in a first direction (one horizontal direction of 1L, 2b) by placement of the first permanent magnet block in the device (shown in Fig. 1); further restraining movement of the first permanent magnet block in a second direction (direction perpendicular to the horizontal direction of 1L, 2b) with a 3 axis ball screw driven slides 30, 23 (in Fig. 1); placing a second permanent magnet block 1R, 2a adjacent to the first permanent magnet block to eventually form part of magnetic circuit of a transformer; restraining movement

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of the second permanent block in a third direction, which would exclude the step of, or otherwise be brought about by, placing the second permanent magnet adjacent to the first permanent magnet block; and further restraining movement of the second permanent magnet block in a fourth direction with a 3 axis ball screw driven slides 30, 23 (in Fig. 1). The second direction and fourth direction can be read as the same direction.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baermann.

Baermann discloses the claimed manufacturing method as relied upon above in Claims 1 and 5, further including that the magnetic orientation of the first and second permanent magnet blocks differ by some angle from axis 18. However, Baermann does not say whether this angle is 30 degrees. The specific angle of magnetic orientation is considered to be an effective variable within the level of ordinary skill in the art of assembling permanent magnet blocks in a radial orientation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided angle of 30 degrees as the angle of magnetic orientation between the first and second permanent magnet blocks, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

13. The applicant(s) arguments filed on October 3, 2006 have been fully considered but they are not persuasive.

In regards to the merits of Baermann and Taneda, the applicant(s) argue that neither teach placing the second permanent magnet results in “placing to form at least part of a magnetic circuit including the first and second permanent blocks” (lines 8-9 of Claim 1).

The examiner most respectfully disagrees. In Baermann, the first and second permanent magnet blocks are part of a magnetic circuit by virtue of the probes (e.g. 40 in Fig. 1) and electrical wiring (not labeled) connected to the probes where current is supplied to these probes during operation, thus, forming a magnetic circuit with the first and second permanent magnet blocks.

In Taneda, the first and second permanent blocks are eventually to be used as an electrical transformer that completes part of a magnetic circuit with coils to induce electromagnetics (col. 1, lines 10+). So the placement of the second permanent magnet relative to the first permanent magnet during assembly forms part of a magnetic circuit that effects operations of an electrical transformer.

Therefore, the examiner’s position is that both Baermann and Taneda meet the limitations of “placing to form at least part of a magnetic circuit including the first and second permanent blocks” (lines 8-9 of Claim 1).

Also in Taneda, the applicant(s) further argue that Taneda does not teach “restraining movement...first permanent magnet block” (lines 10-12 of Claim 1). That these limitations

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mean that the restraining of the second permanent magnet block in the third direction results from placement of the first permanent magnet block in proximity.

First, the examiner notes that the magnetic blocks (e.g. 1, 2) of Taneda are permanent magnets base upon the material (e.g. magnetic allow, col. 1, lines 8-10) and because these blocks form a magnetic core with an electromagnet (e.g. coils).

Second, the examiner also notes that the term “otherwise” (line 11 of Claim 1) means that the step of restraining movement of the second permanent magnet block in the third direction is *excluded* by the step of placing the second permanent magnet block proximate to the first permanent magnet block. It appears that what the applicant(s) are arguing completely contradicts what is claimed particularly that both of these steps result from one another. In Taneda, directions of movement of the first and second permanent magnet blocks are each separately restrained in directions by the 3-axis ball screw drive linear slide. Therefore, Taneda meets the limitations of “restraining movement...first permanent magnet block” (lines 10-12 of Claim 1).

Allowable Subject Matter

14. Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter.

With respect to Claim 3, the prior art does not teach restraining movement of the first permanent magnet block in at least the second direction by *deforming the nonmagnetic frame*,

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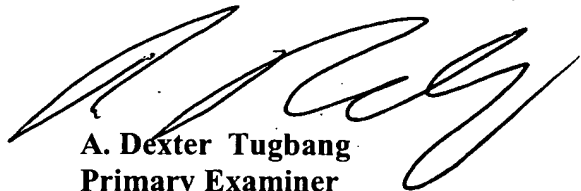
where the first permanent magnet block is part of a magnetic circuit that includes both the first and second permanent magnet blocks.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


A. Dexter Tugbang
Primary Examiner
Art Unit 3729

January 19, 2007